

**Solving Inequalities:**  
When you divide or multiply by a negative number, flip the inequality!

**Average Rate of Change = Slope**

$$\frac{y_2 - y_1}{x_2 - x_1}$$

**Understand  $f(x)$ .**

It is NOT  $f$  times  $(x)$ !

**Graphing Inequalities:**  
If  $>$  or  $\geq$  then shade UP on the y-axis.  
If  $<$  or  $\leq$  then shade DOWN on the y-axis.

$$y = mx + b$$

$m$  represents the slope  
 $b$  represents the y-intercept

**Domain: x-values only!**

$$\_\_ < x < \_\_$$

**Range: y-values only!**

$$\_\_ < y < \_\_$$

# MR. PAPETTI'S 1<sup>ST</sup> HALF GUIDE FOR SUCCESS

**MOST IMPORTANT:**  
Be fluent with your graphing calculator!

## Systems of Equations

### By Graphing

→ Useful when “y” is isolated for both equations.  
→ Solution is where lines intersect.

### By Substitution

→ Useful when “y” is isolated for one equation.  
→ Substitute for isolated variable and solve for all unknowns.

### By Elimination

→ Eliminate one variable by multiplying either equation by a constant that will yield opposite coefficients for the same variable.